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1. THE MIG-25P WAS ORIGINALLY DESIGNED TO COUNTER THE U.S. XB-70 BOMBER. SINCE THE XB-70 DEVELOPMENT NEVER REACHED FRUITION, THE PRIMARY MISSION OF THE MIG-25P HAS BECOME TO INTERCEPT THE SR-71. THE

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Approved For Release 2006/08/01 : CIA-RDP81M00980R000400030022-1

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MIG-25P ALSO POSSESSES A LIMITED CAPABILITY AGAINST LOWER ALTITUDE TARGETS.

25X1 2. [redacted] THE ONLY WAY THE MIG-25P CAN SUCCESSFULLY INTERCEPT THE SR-71 IS FROM A HEAD-ON SNAPUP ENGAGEMENT. THIS IS TRUE SO LONG AS THE SR-71 REMAINS IN ITS HIGH-ALTITUDE, HIGH-SPEED ENVIRONMENT; HOWEVER, IF THE SR-71 DEVELOPS MECHANICAL PROBLEMS AND IS FORCED TO DECELERATE AND DESCEND, IT BECOMES INCREASINGLY VULNERABLE TO REAR HEMISPHERE ATTACKS.

25X1 3. [redacted] ALL INTERCEPTS ARE DIRECTED/CONTROLLED BY GCI DATA LINK. THE PILOT MERELY FOLLOWS THE INDICATIONS DISPLAYED IN THE COCKPIT. SPECIFICALLY, HE MANIPULATES THE THROTTLES TO MAINTAIN THE GCI DIRECTED AIRSPEED AND FIRES THE SEMIACTIVE AND/OR INFRARED MISSILES WHEN THE INTERCEPT IS COMPLETE. DUE TO RAPIDLY CHANGING ENGAGEMENT PARAMETERS ASSOCIATED WITH HIGH-SPEED, HIGH-ALTITUDE TARGETS (SR-71) AND TO SOVIET PREFERENCE FOR GCI (DATA LINK) CONTROLLED INTERCEPTS, AUTONOMOUS ENGAGEMENTS ARE UNLIKELY.

4. THE HEAD-ON INTERCEPT PROFILE, FLOWN AGAINST THE SR-71, ESTABLISHES THE MIG-25P 7,000 METERS BELOW THE TARGET. AN INTERCEPT SPEED OF MACH 2.34 IS MAINTAINED BY THE MIG-25P TO UTILIZE THE BEST

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FUEL CONSUMPTION RATES, TO AVOID EXCEEDING AFTERBURNER OPERATIONAL LIMITATIONS, AND TO OPTIMIZE THE SEARCH AND TRACK FUNCTIONS OF THE

25X1 MIG-25P RADAR. [redacted] THE 7,000-METER SEPARATION AND MACH 2.34 INTERCEPT SPEED WOULD BE MAINTAINED EVEN IF THE TARGET AIRCRAFT CHANGED ALTITUDE AND AIRSPEED.

5. THE MISSILE CARRIED BY THE MIG-25P HAS BOTH A RADIO AND AN OPTICAL FUZE. THE RADIO FUZE IS THE PRIMARY FUZE FOR WARHEAD DETONATION; THE OPTICAL FUZE IS A BACKUP. IF THE TARGET SPEED EXCEEDS 3,250 KILOMETERS/HOUR (1,760 KNOTS), THE RADIO FUZE IS UNABLE TO DETECT THE TARGET. THEREFORE, AT TARGET SPEEDS GREATER THAN 3,250 KILOMETERS/HOUR, THE MISSILE IS DEPENDENT UPON THE OPTICAL FUZE FOR WARHEAD DETONATION. THE MAXIMUM CLOSURE RATE THAT THE FUZING AND FIRING CIRCUITRY CAN ACCOMMODATE IS 2,800 METERS/SECOND (APPROXIMATELY 5,440 KNOTS). AT HIGHER CLOSURE RATES, THE MISSILE WARHEAD WOULD DETONATE AFTER PASSING THE TARGET. WITH THE MIG-25P MAINTAINING AN INTERCEPT SPEED OF MACH 2.34, THE TARGET PLATFORM WOULD HAVE TO EXCEED MACH 4.4 FOR THIS TO OCCUR.

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